Listing of the claims:

17. (Previously Presented) A method for evaluating the quality of an IC package where the IC package includes a plurality of three dimensional features, the method comprising:

acquiring a two dimensional image characteristic of a portion of the IC package, the two dimensional image defined by a plurality of pixels having at least an address and a pixel intensity;

acquiring a three dimensional image characteristic of the portion of the IC package, the three dimensional image defined by a plurality of pixels having at least an address and an altitude;

processing the two dimensional image to identify a plurality of addresses which are characteristic of three dimensional features;

processing the three dimensional image only at those addresses which correspond to two dimensional addresses characteristic of three dimensional features, to determine the altitude of those three dimensional features, and;

rejecting the IC package if the altitude of the three dimensional features fall outside predetermined boundaries.

18. (Previously Presented) A method as in claim 17 wherein the processing of the three dimensional image further comprises determining the shape of the three dimensional features and the IC package is rejected if the shape of the three dimensional feature falls outside a predetermined boundary.

19. (Previously Presented) A method as in claim 18 wherein the three dimensional features are characteristic of spheres.

20. (Currently amended) A method as in claim 19 wherein the determining step further comprises the step of comparing the spheres ~~are compared~~ against ~~templates~~ at least one template.

21. (Previously Presented) A method as in claim 18 wherein the IC package is rejected if any three dimensional feature exceeds a predetermined value.

22. (Previously Presented) A method as in claim 18 wherein the IC package is rejected if the coplanarity value of a collection of three dimensional features is greater than a predetermined value.

23. (Currently amended) A method as in claim 22 where the coplanarity value is determined by calculating planes of repose.

24. (Previously Presented) A method as in claim 22 where the coplanarity value is determined by calculating a best fit plane using least squares.

25. (Previously Presented) A method as in claim 17 further comprising comparing the two dimensional image against a two dimensional template and rejecting the quality of the IC package if the comparison reveals that the two dimensional image does not include three dimensional features in an expected configuration.

26. (Previously Presented) A method as in claim 25 wherein the two dimensional image is a gray scale image and the two dimensional image is correlated against the two dimensional template.

27. (Previously Presented) A method as in claim 17 wherein a pair of opposed lasers are used to obtain a first and second three dimensional image and the first and second three dimensional images are combined to obtain the three dimensional image.

28. (Previously Presented) A method as in claim 17 further comprising determining a correspondence between the addresses in the two

dimensional image and the addresses in the three dimensional image by calibrating to a machined fixture.

29. (Previously Presented) A method as in claim 28 further comprising transforming the three dimensional image to remove geometric distortion.

30. (Previously Presented) A method for evaluating the quality of an IC package where the IC package includes a plurality of three dimensional features, the method comprising:

acquiring a two dimensional image characteristic of a portion of the IC package, the two dimensional image defined by a plurality of pixels having at least an address and a pixel intensity;

acquiring a three dimensional image characteristic of the portion of the IC package, the three dimensional image defined by a plurality of pixels having at least an address and an altitude;

comparing the two dimensional image against a two dimensional template and rejecting the quality of the IC package if the comparison reveals that the two dimensional image does not include three dimensional features in an expected configuration;

processing the two dimensional image to identify a plurality of addresses which are characteristic of three dimensional features;

processing the three dimensional image only at those addresses which correspond to two dimensional addresses characteristic of three dimensional features, to determine the altitude of those three dimensional features, and;

rejecting the IC package if the altitude of the three dimensional features fall outside predetermined boundaries.

31. (Previously Presented) A method as in claim 30 wherein the IC package is rejected if any three dimensional feature exceeds a predetermined value.

32. (Previously Presented) A method as in claim 30 wherein the IC package is rejected if the coplanarity value of a collection of three dimensional features is greater than a predetermined value.

33. (Previously Presented) A method as in claim 30 wherein a pair of opposed lasers are used to obtain a first and second three dimensional image and the first and second three dimensional images are combined to obtain the three dimensional image.

34. (Previously Presented) A method as in claim 30 further comprising determining a correspondence between the addresses in the two dimensional image and the addresses in the three dimensional image by calibrating to a machined fixture.

35. (Previously Presented) A method as in claim 34 further comprising transforming the three dimensional image to remove geometric distortion.

36. (Currently amended) A method for evaluating the quality of an IC package where the IC package includes a plurality of three dimensional features, the method comprising:

acquiring a two dimensional image characteristic of a portion of the IC package, the two dimensional image defined by a plurality of pixels having at least an address and a pixel intensity;

acquiring a three dimensional image characteristic of the portion of the IC package, the three dimensional image defined by a plurality of pixels having at least an address and an altitude;

processing the two dimensional image to identify a plurality of addresses which are characteristic three dimensional features;

determining a correspondence between the addresses in the two dimensional image and the addresses in the three dimensional image by calibrating to a machined fixture[.] ;

processing the three dimensional image only at those addresses which correspond to two dimensional addresses characteristic of three dimensional features, to determine the altitude of those three dimensional features, and;

rejecting the IC package if the altitude of the three dimensional features fall outside predetermined boundaries.

37. (Previously Presented) A method as in claim 36 wherein the processing of the three dimensional image further comprises determining the shape of the three dimensional features and the IC package is rejected if the shape of the three dimensional feature falls outside a predetermined boundary.

38. (Previously Presented) A method as in claim 37 further comprising comparing the two dimensional image against a two dimensional template and rejecting the quality of the IC package if the comparison reveals that the two dimensional image does not include three dimensional features in an expected configuration.

39. (Previously Presented) A method as in claim 38 wherein the two dimensional image is a gray scale image and the two dimensional image is correlated against the two dimensional template.

40. (Previously Presented) A method as in claim 39 wherein a pair of opposed lasers are used to obtain a first and second three dimensional image and the first and second three dimensional images are combined to obtain the three dimensional image.

41. (Previously Presented) A method as in claim 40 further comprising transforming the three dimensional image to remove geometric distortion.